

ABSTRACT OF THE DISCLOSURE

The present invention discloses a CVD apparatus which, together with being able to efficiently perform purging treatment after maintenance, uses for the purge gas a mixed gas of a gas having high thermal conductivity and an inert gas during heated flow purging treatment after maintenance to perform startup of the CVD apparatus while reducing the amount of time required for purging treatment. Purging treatment before semiconductor film formation is performed by repeating the pumping of a vacuum and the introduction of inert gas a plurality of times. In addition, in order to judge suitable maintenance times of semiconductor production apparatuses that perform corrosive gas treatment in a reaction chamber, the moisture concentration in reaction chamber is measured with moisture meter connected to the reaction chamber when performing the corrosive gas treatment, and maintenance times of the semiconductor production apparatus are determined according to changes in the moisture concentration when corrosive gas treatment is performed repeatedly. In addition, in order to measure the moisture of corrosive gas during processing while preventing obstruction of piping in a moisture monitoring apparatus and semiconductor production apparatus equipped therewith, a moisture monitoring apparatus, which is equipped with a pipe, of which one end is connected to reaction chamber into which corrosive gas flows, and a moisture meter connected to the other end of that pipe which measures the moisture contained in the corrosive gas introduced from the reaction chamber, is at least equipped with pipe heating mechanism that heats the pipe.